

SURFACE EFFECT SHIP IMPROVEMENTS

ABSTRACT

Presented is an improved Surface Effect Ship (SES) that offers the high efficiencies of the pressurized air cushion supported generic flexible bow and stern seal SES but without the generic SES's shortcomings that are due largely to its 80 percent total hull width flexible bow and stern seals. This is accomplished in the instant invention by use of forward extending rigid bow members positioned both sides of a pressurized hull supporting gas cushion where the width of the sidehulls make up a majority of the width of the instant invention improved surface effect ship with the remainder, less than 35 percent of vessel width normally, made up by a gas cushion forward seal member disposed between the bow members. Gas cushions may extend forward into undersides of the sidehull bow members to further reduce wetted area resistance. Longitudinally oriented fluid fences may be incorporated to at least partially separate portions of the gas cushion and thereby dampen pressure perturbations in the gas cushion(s). A third bow member may be utilized between port and starboard sidehulls.